

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the captioned patent application.

Please cancel claim 11 without prejudice or disclaimer:

Listing of Claims:

1. (Currently Amended) A wearing parts system (1) intended for the for a tool of a tilling-an earth moving machine of the type which comprises comprising:
a holder part [[(3)]], attached to the tool and comprising a holder beak (8), and beak; and
a wearing and/or replacement part [[(2)]], arranged at this holder beak (8) and configured
to be disposed on the holder beak [[(8)]], comprising a hollow [[(7)]], which is designed
configured to grip the holder beak [[(8)]], when the wearing and/or replacement part is disposed
on the holder beak, and is fixed further configured to be fixed thereto by means of a locking
mechanism [[(5)]]] inserted through both the holder part [[(3)]]] and the wearing and/or
replacement part [[(2)]], the holder beak [[(8)]]] and the hollow (7) of the wearing and/or
replacement part (2) having a plurality of contact zones [[(9, 22, 23)]], each comprising at least
two mutually interacting contact faces [[(10, 25, 26)]], one or more of which are configured to
certain of which only interact with one another after a certain predetermined wear, which
wherein one of the contact faces are disposed one is disposed on the holder part [[(3)]]] and the
other of the contact faces is disposed [[one]] on the wearing and/or replacement part [[(2)]]] and
are intended configured to absorb forces F_x, F_y and F_z, of which forces, wherein the contact
zones [[(9, 22, 23)]]] comprise:

at least one pair of the front contact zones (9a, 9b) is disposed on either side of the
longitudinal line of symmetry [[Y]] of the wearing parts system [[(1)]], whilst and at least one
pair of the rear contact zones [[(9c, 9d)]]] configured to form a forms a certain defined angle with
and on either side of the said line Y longitudinal line of symmetry;

at least one pair of the front and rear contact zones (9i, 9j and 9g, 9h) is disposed laterally
offset in pairs and on either side of the line of symmetry [[Y]]; and

the contact zones which comprise further comprising, on the one hand, at least one front contact zone (9e) and, on the other hand, at least two rear contact zones (9, 22, 23), such that at least two of which the rear contact zones are constituted by comprise interacting joints [[(22, 23)]] with configured to have a common rotational axis [[Z]], which wherein the interacting joints [[(22, 23)]] each comprise a recess comprise one or more recesses (21) and a projection and one or more projections (19) each comprising, wherein each of the recesses and projections comprise a respective contact face [[(25, 26)]], disposed one on each coupling part of the holder part and the wearing and/or replacement parts [[(2, 3)]], wherein the common rotational axis is arranged substantially perpendicular to the direction of fitting of the locking device, in that the recesses are made on the wearing and/or replacement part and comprise a respective end face and in that the projections [[(19)]] are disposed on the holder part such that they comprise a respective end face [[(26)]], which wherein the contact faces [[(25, 26)]] are designed configured to interact so as, on the one hand, to limit the pushing-on of the wearing and/or replacement part [[(2)]] over the holder part [[(3)]] and, on the other hand, further configured to ensure that the contact between the contact faces [[(25, 26)]] on the recesses and on the projections will be made, primarily, at the at a common centre [[M₀]] of the said end faces [[(25, 26)]] and secondarily, as the wear has progressed, about this mid-contact point the common centre, M₀, as into an increasingly large contact zone [[(22', 23')]], while the distance between the end faces of the interacting joints at their common centre is equal to zero or substantially less than between the end faces of the collars such that a play 24 between the collars is considerable.

2. (Currently Amended) Wearing parts system [[(1)]] according to claim 1, characterized in that wherein the locking mechanism (5) comprises comprises:

at least one locking device (27), placed configured to be placed through interacting openings (28A, 28B, 28C) through disposed within both the holder part [[(3)]] and the wearing and/or replacement part [[(2)]], and further configured to comprise at least a first, a second and a third section wherein the first section is configured to have the widest cross section and the third section is configured to have the smallest cross section among the first, second and third sections, and that such that when the locking device [[(27)]] is placed through and the openings (28A, 28B, 28C) in the wearing and/or replacement part [[(2)]] and the holder part [[(3)]], three sections are defined are divided into at least three different sections, (29A, 29B, 29C and 28A, 28B, 28C) in the longitudinal direction of the openings (28A, 28B, 28C), in which the section the first section [[(28A)]] of the locking device opening through which the locking device is first inserted appears first in the direction of fitting of the locking device (27) has is configured to have the widest cross section [[(28A)]], whilst the third section [[(28C)]] of the locking device opening through which the locking device is lastly inserted appears last in the direction of fitting of the locking device (27) has is configured to have the smallest cross-sectional section (28C) and the first introduced, third section (29C) of the locking device (27) has the smallest cross-sectional section (29C), whilst the second locking device section (29B) in the direction of fitting has a somewhat larger cross section (29B) than the first introduced, third section (29C) of the locking device (27), but, at the same time, somewhat introduced, first section (29A) of the locking device (27) has the widest cross section (29A) of the locking device (27).

3. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein the locking device (27) is of the type which comprises a rigid locking device body [[(29)]] having an elastic material [[(32)]] inlaid into the locking device body [[(29)]], which wherein the material is configured to loads load at least one movable engagement part [[(30, 31)]] toward a predetermined position.

4. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein the locking device [[(27)]] comprises at least two movable engagement parts [[(30, 31)]] loaded by elastic material [[(32)]], which-wherein the engagement parts are constituted by a securing plate [[(31)]] for detachable blocking of the locking device [[(27)]] in a predetermined locking position, and a compression plate (30), which-configured to load via its elastic material (32), is designed to load the contact zones [[(9, 22, 23)]] of the wearing and/or replacement part [[(2)]] and of the holder part [[(3)]] one against theeach other.

5. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein the locking device [[(27)]] comprises a hollow [[(43)]] for the elastic material [[(32)]], which-wherein the hollow [[(43)]] has a first gap opening (43) intended for theconfigured to allow an expansion of the elastic material [[(32)]] when this-the elastic material is subjected to load during the removal of the locking device [[(27)]], and, in addition thereto, one or more further gap openings (41, 42, 43)configured to project beyond the body of the locking device when the locking device is free from external loads through which the particular engagement parts (30, 31), in a state which for the locking device (27), is free from external loads, project a certain way beyond the body (29) of the locking device (27).

6. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein the locking device opening [[(28B)]] through the holder beak [[(8)]] of the holder part [[(3)]] comprises a first portion [[(35, 37)]] in the direction of fitting which is at least wider in a first direction than a corresponding second portion [[(29B')]] of the body [[(29)]] of the fitted locking device [[(27)]], which portion [[(35, 37)]] of the locking device opening [[(28B)]] comprises a first segment [[(35)]] and a second segment [[(37)]], which wherein the first segment [[(35)]] is wider than the corresponding locking device body [[(29)]] in the said first direction, is designed to constitute comprises a cavity (35) intended for securing configured to secure plate (31) in its in an extended position blocking the locking device [[(27)]], whilst the second segment (37) is designed to constitute, or form, comprises or is configured to form a space (40) intended for the configured to allow an expansion of the elastically deformable resilient material [[(32)]] when this the second segment is subjected to load during the removal of the locking device [[(27)]].

7. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that further comprising connecting to the locking device opening (28A) through the hood (6) of the tine part (2) there is a pin [[(45)]] disposed on the inner side of the roof [[(36)]] of the hood [[(6)]] and configured to connect to the locking device opening through the hood of the tine part, and further configured to affix to against which pin (45) the securing plate [[(31)]] of the locking device [[(27)]] shall fix.

8. (Currently Amended) Wearing parts system [[(1)]] according to claim 7, characterized in that wherein a bevel [[(46)]], which widens configured to widen downward in the direction of fitting of the locking device [[(27)]], is disposed on that side of the locking device body [[(29)]] facing toward the said pin [[(45)]], and configured such that so that the locking device body [[(29)]] and the pin [[(45)]] are free from contact with each other.

9. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein a cross section through the body [[(29)]] of the fitted locking device [[(27)]] level with the inner side of the roof [[(36)]] of the hood [[(6)]] consists of a homogeneous, solid, unbroken cross section or a cross section which is unbroken to the extent of at least 50% or more.

10. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein a leverage ratio from the Y-line line of symmetry to the contact point M_0 , common centre between the hood [[(6)]] of the tine part [[(2)]] and the holder part [[(3)]] is equal to zero or less than the radius R_{π} , radius of the projection one or more projections [[(19)]].

11. (Cancelled)

12. (Currently Amended) Wearing parts system [[(1)]] according to claim 10, characterized in that wherein the radius [[R_1]] for a respective recess respective one or more recesses [[(21)]] is] are larger than the radius R_2 for a for corresponding projection one or more projections [[(19)]].

13. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein at least two rear contact zones [[(9)]] are provided, which comprise a greater angle of inclination to the Y-line line of symmetry of an inner, longitudinal peripheral line P_1 , line along the locking device opening [[(28B)]] through the beak [[(8)]] than of an outer, collateral longitudinal peripheral line P_2 , line.

14. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein the various contact faces {10, 11, 25, 26} comprise a plurality of different inclinations, conicities and roundings, several being parallel but laterally offset.

15. (Currently Amended) Wearing parts system [[(1)]] according to claim 2, characterized in that wherein one or more torque loads caused by the rotation of the wearing and/or replacement part [[(2)]] in relation to the holder part [[(3)]] are designed configured to be absorbed directly or after a certain minor wear by at least one of the front contact zones [[(9)]] in interaction with at least the said contact zones [[(25, 26)]] on the rear collateral joints [[(22, 23)]].